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ON A NEW PRIMITIVE THEROMORPH (*EUMATTHEVIA BOLLI*)

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A few months ago, on looking over some of the old specimens in the Cope collection of Permian Reptiles in the American Museum, I came across the remains of a new Theromorph which had been overlooked

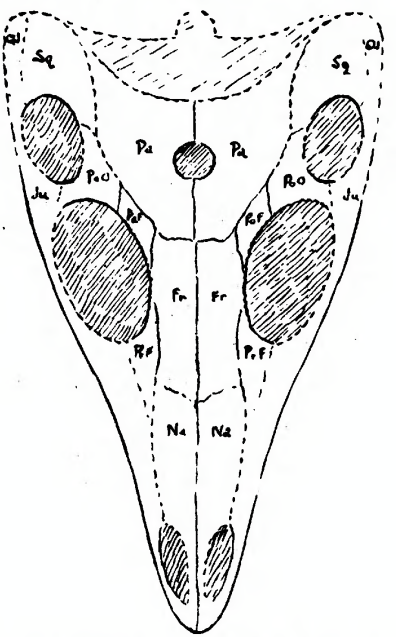

Fig. 1. *Eumatthevia bolli*, n. sp. Type. Skull. Amer. Mus. Cope Coll. 7002. Natural size. Superior view.

through the fragmentary skeleton having been wrongly labeled by the collector as that of a small Labyrinthodont.

The remains are the greater part of a small skeleton considerably crushed and much broken. Among the remains are most of the skull, the greater part of both scapulæ, parts of the anterior limbs, a small part of the pelvis and much of one hind-limb with probably most of the verte-

bræ. Mixed with the remains of the skeleton are parts of the skeleton of a smaller animal which are not well enough preserved to be determinable.

The specimen [Am. Cope Coll. 7002] was collected in 1880 by Cope's collector Jacob Boll, at Copper Shept, apparently in Texas.

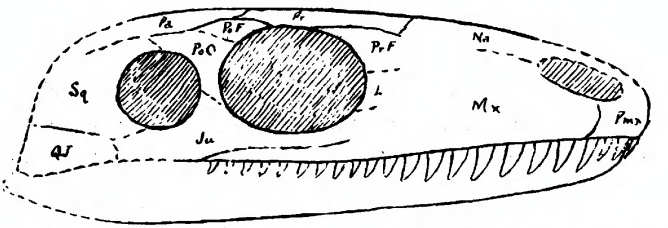

Fig. 2. *Eumatthevia bolli*, n. sp. Type. Skull. Amer. Mus. Cope Coll. 7002. Natural size. Lateral view, right side.

The sutures in line are those seen in the specimen; those in broken lines are hypothetical but probably correct.

The skull though nearly complete is very badly fractured longitudinally. One slab shows the inner side of the left parietal, frontal and much of the nasals, prefrontal and postorbital bones sufficiently well preserved to enable one to make quite a satisfactory restoration of the top of the skull. A part of the counter slab shows the inner side of the left half of the skull, including practicably a complete lower jaw,

Fig. 3. *Eumatthevia bolli*, n. sp. Type. Left ramus of mandible. Amer. Mus. Cope Coll. 7002. Natural size. Internal view.

with the left orbit and the left temporal fossa. The left squamosal is sufficiently well preserved to make out clearly its size and position, and the left postorbital is nearly perfect. The side view I give of the skull is slightly restored from the bones as seen on the inner aspect. The lower jaw shows almost all the bones of the inner side and can be satisfactorily restored as I have done in figure 3.

Another considerable fragment shows the right side of the snout with the premaxilla and much of the maxilla, and under the inner side much of the prevomers.

The premaxillary bone has four sharp, pointed teeth and the maxillary has eighteen. These teeth are typical thecodont teeth, and are as shown in the drawing. The prevomers are long and slender and have a longitudinal row of small teeth. The palatines are not satisfactorily displayed, but the pterygoids show a considerable number of small pointed teeth in both the anterior and middle parts.

The skull will be seen to be fairly closely allied to the primitive theromorphs *Glaucosaurus* and *Mycterosaurus*. It differs from *Glaucosaurus* in having a long slender snout, and from *Mycterosaurus* in being much more slenderly built and in having a skull very much flatter, and also in having a very large pineal foramen instead of a small one as in *Mycterosaurus*. It manifestly, however, is a near ally of *Mycterosaurus* and *Glaucosaurus*.

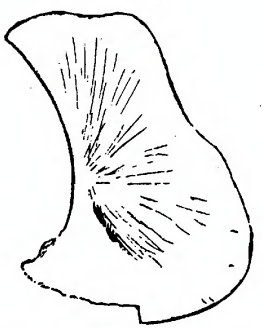

Fig. 4. *Eumatthevia bolli*, n. sp. Type. Left scapula. Amer. Mus. Cope Coll. 7002. Natural size. Internal view.

The following are some of the principal measurements of the skull:

Greatest length	88 mm.
Anteroposterior length of orbit	22 mm.
Anteroposterior length of temporal fossa	11 mm.
Length of the dental series	58 mm.
Length of lower jaw	80 mm.

The vertebræ are for the most part elongated, but considerable further preparation will be required before the detailed structure can be clearly made out.

The left scapula is well preserved and there is also much of the right. The left has its inner aspect displayed. It is short and broad, and the outline can be almost completely restored from the two bones. I find no trace of an ossified coracoid or precoracoid, and I am inclined to think

that they have remained cartilaginous and that only the scapula has been ossified.

The humerus is moderately long and slender but not well preserved. It probably measured 47 mm. in length.

The femur probably measured 55 mm. in length and is rather a stronger bone than the humerus.

The tibia measures 47 mm. in length and the fibula 48 mm. The lower end of the fibula is much flattened.

Of the tarsal elements the astragalus and calcaneum are well preserved with the large 4th distal tarsal and much of the 5th distal tarsal and a portion of the 3d.

This primitive theromorph is of very great importance as being not only one of the most primitive known of the American Permian but also as being a connecting link with the primitive therapsids of South Africa through the South African genus *Anningia*. I have therefore much pleasure in naming it after the distinguished American palæontologist Professor W. D. Matthew, who has taken a great interest not only in the Tertiary mammals but also in the Permian fossils, and I have associated the name of Cope's collector Boll with this remarkable find.